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EXAMINER
BARQADLE, YASIN M

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/667,881	MANGAL ET AL.
	Examiner	Art Unit	
	YASIN M. BARQADLE	2153	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>02/15/2008</u>.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-17 and 19-26</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-17 and 19-26</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

Response to Amendment

Applicant's arguments filed on February 15, 2008 have been

considered and the finality of the previous office action has

been withdrawn. New art rejection has been provided.

Claims 1-17 and 19-26 are presented for examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which

forms the basis for all obviousness rejections set forth in this

Office action:

> (a) A patent may not be obtained though the invention is not identically
> disclosed or described as set forth in section 102 of this title, if the
> differences between the subject matter sought to be patented and the prior
> art are such that the subject matter as a whole would have been obvious at
> the time the invention was made to a person having ordinary skill in the
> art to which said subject matter pertains. Patentability shall not be
> negatived by the manner in which the invention was made.

Claims 1,3,4, 7-10, 13, 14-15, 19,25, and 26 are rejected

under 35 U.S.C. 103(a) as being unpatentable over Adelman et al.

(US 6078957), hereinafter "Adelman" in view of Fleming US PUB.

(20020152446).

As per claims 1 and 3, Adelman teaches a method comprising:

receiving a keepalive message from a client (col. 8, lines 14-16 and col. 9, lines 3-5);

determining a measure of network load (packet loss is a measure of network load that is determined by the master, "... master calculates and stores a packet loss average value using the sequence number of the client keepalive message and the calculated adaptive keepalive interval." column 8, lines 20-23.);

selecting a keepalive period (based on packet loss, an adaptive keep alive period is calculated," ... the master calculates and stores a packet loss average value using the sequence number of the client keepalive message and the calculated adaptive [i.e. changes the] keepalive interval", column 8, lines 20-23);

reporting the selected keepalive period to the client station in a response to the received keepalive message (col. 13, lines 42 to col. 14, lines 13) (selected keep alive period is reported to client, "As indicated above, the master periodically [presence server] sends out a master keepalive message containing the cluster member list, the adaptive keepalive interval ..." column 8, lines 31-33); and   the client station responsively sending a keepalive message to a

presence server at a time determined based on the selected

keepalive period (client sends keep alive messages with updated

adaptive keepalive interval, "The non-master cluster members

(clients) must also send keepalive message and ..." Column 9,

lines 2-3 in conjunction with, "... when a client gets a master

keepalive message 890 it updates its adaptive keepalive interval

891 ...", Column 9, lines 4-6).

although Adelman shows substantial features of the claimed

invention including selecting a keepalive period on measure of

packet loss, he does not explicitly show where the keepalive

period is based on network load.

Nonetheless, this feature is well known in the art and would

have been an obvious modification of the system disclosed by

Adelman, as evidenced by Fleming.

In analogous art, Fleming disclose adjusting heartbeat timeouts

(keepalive period) based on observed conditions such network

congestions (abstract and paragraph 0024). Giving the teaching

of Fleming, a person of ordinary skill in the art would have

readily recognized the desirability and the advantage of

modifying Adelman by employing the adaptive heartbeat system of

Fleming in order to adaptively adjust heartbeat timeouts

(keepalive) based on to observed network conditions. In this way

proper corrective action can be taken to minimize potential

network failures.

Adelman further teaches the presence server (cluster master,

which is also cluster member, "... each of the cluster members

is a computer system...", column 5, line 22; acting as master)

querying a controller (has controller, "... and two Intel

Ethernet controllers," column 5, line 24) that has access to

network load information (FIG. 1 in conjunction with FIG. 4,

FIG. 1 Item 110 is the cluster one ether net connected to other

network units. To get the sequence number master must have

queried and obtained the packet from the Ethernet controller.).

For Claim 4: A presence server (master of the cluster) in a

communication network (see FIG. 1, item 110, in conjunction with

column 5, line 16-17, "...will be described as a cluster whose

applications may be VPN tunnel...", which indicates that FIG. 1,

Item 110 is a cluster), comprising:

    a first module (see FIG. 8B, item 830, a module) arranged

to receive keepalive messages from at least one client station

(master got client keepalive); a second module (a second module,

see FIG. 8B, item 835) arranged to select a keepalive period

(FIG. 8B, Item 835, "CALCULATE AND STORE PACKET LOSS AVERAGE

(USING SEQUENCE NUMBER OF KEEP ALIVE AND ADAPTIVE KEEPALIVE

INTERVAL)", Packet average loss is the measure of network load,

and adaptive keepalive interval is keepalive period based on

network load); a third module (FIG. 8C, item 851) arranged to

report the selected keepalive period to the at least one client

station (FIG. 8C, item 851, "BROADCAST MASTER KEEPALIVE

CONTAINING CLUSTER MEMBER LIST AND ADAPTIVE KEEPALIVE

INTERVAL").

As to the keepalive period being based on network load see the

rejection on claim 1 and 3 above.

For claim 7: The presence server of claim 4 (see supra for claim

4 discussion), wherein the presence server is coupled to a

controller (a master which is also cluster member has two

Ethernet controllers, "each of the cluster members is a computer

system having an Intel motherboard, two Intel Pentium

processors, a 64 megabyte memory and two Intel Ethernet

controllers,..."), the controller keeping track of network load

information (the controller receives the packets, therefore

controller keeps track of packet sequence numbers, which in turn

determine network packet loss-network load, "... when the master

gets a 'client keepalive message' (that is one from a non-master

cluster member) 830 ... master calculates and stores a packet

loss average value using sequence number of the client keepalive

message and the calculated adaptive keepalive interval.", Column

8, lines 15-23).

For claim 8: The presence server of claim 4 (see supra for claim

4 discussion), wherein the presence server is embedded with a

controller (a master which is also cluster member has two

Ethernet controllers that are present on the mother board or

attached to mother board, i.e. they are embedded, "each of the

cluster members is a computer system having an Intel

motherboard, two Intel Pentium processors, a 64 megabyte memory

and two Intel Ethernet controllers.... ") that keeps track of

network load information (the controller receives the packets

with packet sequence number, therefore controller keeps track of

packet sequence numbers, which in turn determine network packet

loss, which is a measure of network load, "... when the master

gets a 'client keepalive message' (that is one from a non-master

cluster member) 830 ... master calculates and stores a packet

loss average value using sequence number of the client keepalive

message and the calculated adaptive keepalive interval.", column

8, lines 15-23).

For claim 9: Adelman teaches a system comprising:

    at least one client station (FIG. 4, Items 405-409 as non-

master cluster members); a presence server (Master acting as
presence server and for description of master formation please
refer to FIG. 6 - 8A, in conjunction with reference to column 6,
line 40 - column 8, line 13); the presence server receiving a
keepalive message from the at least one client station (col. 8,
lines 14-16 and col. 9, lines 3-5);

the presence server determining a keepalive period
(keepalive period is determined by master based on packet loss,
which is a measure of network load, "... when the master gets a
'client keepalive message' (that is one from a non- master
cluster member) 830 ... master calculates and stores a packet
loss average value using sequence number of the client keepalive
message and the calculated adaptive keepalive interval.", column
8, lines 15-23) based on network load (packet loss rate is a
measure of network load) and sending an indication of the
keepalive period to the at least one client station in a
response to the keepalive message (col. 13, lines 42 to col. 14,
lines 13)(FIG. 8C, item 851, "BROADCAST MASTER KEEPALIVE
CONTAINING CLUSTER MEMBER LIST AND ADAPTIVE KEEPALIVE
INTERVAL");

the at least one client station sending keepalive signals
according the keepalive period (See FIG. 8H, Item 912, "SEND
CLIENT KEEP ALIVE TO MASTER CONTAINING MONOTONICALLY INCREASING

SEQUENCE # (FOR MEASURING NETWORK PACKET LOSS" in conjunction

with column 9, lines 13-17, "Each client also has a periodic

timer which is adaptive to the network packet loss value send by

the master which requires the client to send a client keepalive

message (containing a monotonically increasing numeric value) to

the master periodically").

As to the keepalive period being based on network load see the

rejection on claim 1 and 3 above.

 For claim 10: The system of claim 9 (see supra for claim 9

discussion), further comprising a controller that has access to

network load information (FIG. 1 in conjunction with FIG. 4,

FIG. 1 Item 110 is the cluster one ether net connected to other

network units. To get the sequence number master must have

queried and obtained the packet from the Ethernet controller.).

For claim 13: The communication network of claim 9 is a packet-

switched network (see FIG. 1, Item 110 the cluster connecting to

internet 107 through communication link 109, It is well known

that internet is a packet-switched network).

For claims 14 and 15: A method comprising: sending a first

keepalive message from a client station to a presence server

(FIG. 8B, Item 830, "MASTER [master is presence server] GOT

CLIENT KEEPALIVE"); selecting a keepalive period based on a

measure of network load (FIG. 8B, item 835, "CALCULATE AND STORE

PACKET LOSS AVERAGE (USING SEQUENCE NUMBER OF KEEPALIVE AND

ADAPTIVE KEEPALIVE INTERVAL", the packet loss average is network

load and keepalive period is changed based on this load)";

reporting the selected keepalive period to the client station"

(FIG. 8C, "BRAODCAST MASTER KEEPALIVE CONTAINIGN CLUSTER MEMBER

LIST AND ADAPTIVE KEEPALIVE INTERVAL"); using the selected

keepalive period to determine when the client station should

send a next keepalive message to the presence server (See FIG.

8H, Item 912, "SEND CLIENT KEEP ALIVE TO MASTER CONTAINING

MONOTONICALLY INCREASING SEQUENCE # (FOR MEASURING NETWORK

PACKET LOSS" in conjunction with column 9, lines 13-17, "Each

client also has a periodic timer which is adaptive to the

network packet loss value sent by the master ..."); sending the

next keepalive message from the client station to the presence

server (client, i.e. non-master sends the keep alive message to

master, i.e. presence server, "... which requires the client to

send a client keepalive message (containing a monotonically

increasing numeric value) to the master periodically (see FIG.

8H) [item 912].", column 9, lines 14-17).

As to the keepalive period being based on network load see the
rejection on claim 1 and 3 above.

For claim 19: Adelman teaches a client station (Cluster member
as described in column 5, lines 22) in a communication network
(see FIG. 1 Item 107), the client station comprising: a receiver
(column 5, line 24, "... two Ethernet controllers", which
implies a ether net phy with a receiver); a transmitter (column
5, line 24, "... two Ethernet controllers", which implies a
ether net phy with a transmitter); a timer (column 9, lines 13-
16, "Each client also has a periodic timer which is adaptive to
the network packet loss value sent by the master which requires
the client to send a client keepalive message ..."); at least
one processor(column 5, line 22, "... two Intel Pentium
processors"); data storage holding program instructions (FIG. 2,
Item 217, CD-ROM medium in conjunction with column 4, line 42,
"... a CD-ROM drive unit 217. The CD-ROM drive unit 217 can read
a CD-ROM medium 219 which typically contains program 221 ...",);
the program instructions being executable by the at least one
processor to send a keepalive message through the transmitter,
and to receive through the receiver a response to the keepalive
message, the response containing information defining a
keepalive period, the keepalive period being selected based on

network load (column 9, lines 13-16 and col. 13, lines 42 to
col. 14, lines 13); and

     the program instructions being executable by the at least
one processor, in response to receiving information defining a
keepalive period wherein the keepalive period is selected based
on network load (column 9, lines 13-16, "Each client also has a
periodic timer which is adaptive to the network packet loss
value [network packet loss value is a measure of network load)
sent by the master which requires the client to send a client
keepalive message ..."), to: (i) set the timer according to the
keepalive period(column 9, lines 13-16, "Each client also has a
periodic timer which is adaptive to the network packet loss
value [network packet loss value is a measure of network load)
sent by the master which requires the client to send a client
keepalive message ..."); (ii) send a new keepalive message
through the transmitter when the timer expires (column 9, lines
13-16, "Each client also has a periodic timer which is adaptive
to the network packet loss value [network packet loss value is a
measure of network load) sent by the master which requires the
client to send a client keepalive message ...").
As to the keepalive period being based on network load see the
rejection on claim 1 and 3 above.

For claim 25: A presence server in a communication network
comprising: a database, the database maintaining a list client
stations that are connected to the network (column 8, lines 31-
33, "As indicated above the master periodically sends out a
master keepalive message containing the cluster member list
...", since cluster member list is being sent, they must be
stored in a database); a timer (column 9, lines 13-16, "Each
client also has a periodic timer which is adaptive to the
network packet loss value sent by the master which requires the
client to send a client keepalive message ..."); wherein the
presence server (master is the presence server) is programmed
to: receive keep alive messages from at least one client station
(See FIG. 8B, item 830, "MASTER GOT CLIENT KEEPALIVE"), select
a keepalive period for the at least one client station based on
a measure of network load (FIG. 8B, Item 835, "CALCULATE AND
STORE PACKET LOSS AVERAGE (USING SEQUENCE NUMBER OF KEEPALIVE
AND ADAPTIVE KEEPALIVE INTERVAL", where packet loss average is
measure of network load based on which keepalive interval is
determined.), report the selected keepalive period to the at
least one client station in a response to the received keepalive
message (col. 13, lines 42 to col. 14, lines 13) (FIG. 8C, item
851, "BORADCAST MASTER KEEPALIVE CONTAINING CLUSTER MEMBER LIST
AND ADAPTIVE KEEPALIVE INTERVAL"), and drop the at least one

client station from the database (FIG. 8E, ITEM 871, "DELETE

CLIENT FROM CLUSTER DATA STRUCTURE") if the presence server does

not receive new keepalive message within the selected keepalive

period from the at least one client station (FIG. 8E, ITEMS 870,

WATCHDOG TIMER FOR A CLIENT EXPIRES", which means presence

server did not receive a keepalive message from the client.).

As to the keepalive period being based on network load see the

rejection on claim 1 and 3 above.

For claim 26: A method comprising: sending a first keepalive

message from a client station to a presence server (See FIG. 8B,

item 830, "MASTER GOT CLIENT KEEPALIVE", which means client must

have sent a keepalive message); selecting a keepalive period

based on a measure of network load (FIG. 8B, Item 835,

"CALCULATE AND STORE PACKET LOSS AVERAGE (USING SEQUENCE NUMBER

OF KEEPALIVE AND ADAPTIVE KEEPALIVE INTERVAL", where packet loss

average is measure of network load based on which keepalive

interval is determined.); reporting the selected keepalive

period to the client station in a response to the first

keepalive message (col. 13, lines 42 to col. 14, lines 13)

(FIG. 8C, item 851, "BORADCAST MASTER KEEPALIVE CONTAINING

CLUSTER MEMBER LIST AND ADAPTIVE KEEPALIVE INTERVAL"); using the

selected keepalive period to determine when the client station

should send a next keepalive message to the presence server

(FIG. 8B, item 837, ".RESET WATCHDOG FOR THIS CLIENT", when this

timer expires, i.e. with in adaptive keepalive interval if

client does not send a keepalive message, client will be

removed) ; updating a database of the presence server based on

whether the client station has sent a next keep keepalive

message to the presence within the selected keepalive period

(FIG. 8E, item 870, '~/ATCHDOG TIMER FOR CLINET EXPIRES", if

keepalive message is received by master it watchdog timer would

have been reset, See FIG. 8B, item 837 in conjunction with item

830).

As to the keepalive period being based on network load see the

rejection on claim 1 and 3 above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms

the basis for all obviousness rejections set forth in this

Office action:

  (a) A patent may not be obtained though the invention is not identically
  disclosed or described as set forth in section 102 of this title, if the
  differences between the subject matter sought to be patented and the prior

    art are such that the subject matter as a whole would have been obvious at
    the time the invention was made to a person having ordinary skill in the
    art to which said subject matter pertains. Patentability shall not be
    negatived by the manner in which the invention was made.

5. Claims 2, 6, 12, 17, 20, 22 and 24 are rejected under 35

U.S.C. 103(a) as being unpatentable over Adelman et al. in view

of Harsch (US 6212175 B1).

For claims 2, 6, and 12 Adelman et al. teaches everything except

client being wireless mobile workstation, or presence server

present in wireless communication network. The general concept

of client being wireless workstation or presence server being

present in wireless communication network is well known in the

art as shown in Figure 1 use of MOBILE UNIT as client or

presence server being present in a wireless network (Harsch: see

the Figure 1, items 66, 66a, 66b, etc., which are mobile units

which are present in a wireless communication network (see item

67 indicating being wireless antenna) and presence server being

Item 60, Host computer). It would have been obvious to one in

skilled in the art at the time of the invention to modify

Adelman et al. to have a wireless mobile workstation and

presence server in a wireless communication network in order to

sustain TCP connection as taught in Harsch (see title, "METHOD
TO SUSTAIN TCP CONNECTION").

For claim 17, Adelman et al teaches all the limitations of claim
17 except serving one or more wireless mobile subscribers in a
wireless communication system. The general concept of serving
one or more wireless mobile subscribers in a wireless
communication system is well known in the art as illustrated by
Harsch (FIG. 1, items 66, 66a, and 66b, several mobile units
serving various subscribers in a wireless communication system).
It would have been obvious to one in skilled in the art at the
time of the invention to modify Adelman et al to serving one or
more wireless mobile subscribers in a wireless communication
system in order to serve various mobile stations in a wireless
communication system as taught in Harsch (see FIG. 1, serving
various mobile units items 66, 66a, and 66b in a wireless
communication network as shown in FIG. 1).

For claim 20: A system for dynamically determining keepalive
periods in a wireless communication network, comprising: at
least one base station (this claim limitation is not taught); at
least one client station (FIG. 4, Items 405-409 as non-master
cluster members); a presence server (FIG. 4, Item 403 as master,

acting as presence server); A packet switched network (see FIG.

4, Items 411 and 107, INTERNET is known to be packet switched

network); The presence server (master, which will be one of

items 403-409) being capable of communicating with at least one

client station (All items 403-409 which is not master are

clients) through the packet-switched network (FIG. 8B, item 830,

"MASTER GOT CLIENT KEEPALIVE", since keepalive is a packet, it

is implicit that there must be packet-switched network); the

presence server determining a keepalive period (keepalive period

is determined by master based on packet loss, which is a measure

of network load, "... when the master gets a 'client keepalive

message' (that is one from a non- master cluster member) 830 ...

master calculates and stores a packet loss average value using

sequence number of the client keepalive message and the

calculated adaptive keepalive interval.", column 8, lines 15-23)

at least one mobile subscriber (this claim limitation is not

taught by Adelman et al) based on network load (packet loss rate

is a measure of network load) and the presence server reporting

the selected keepalive period (FIG. 8C, item 851, "BROADCAST

MASTER KEEPALIVE CONTAINING CLUSTER MEMBER LIST AND ADAPTIVE

KEEPALIVE INTERVAL") to the at least one mobile subscriber (this

limitation is not taught by Adelman et al) through the packet-

switched network (see FIG. 4, Items 411 and 107, INTERNET is

known to be packet switched network); Adelman et al teaches all

the claim limitations as discussed above except for coupling a

mobile client(s) through a base station to a packet switched

network server. The general concept of coupling mobile user

through a base station to a packet switched network server is

well known in the art as illustrated by Harsch (see FIG. 1,

items 66, 66a, and 66b mobile stations, coupled to server (host

computer) through bases station 54a, wired line 52 (see page 4,

Para 0037, lines 4-6, "The network backbone 52 may be a

hardwired data communication path made of twisted pair cable,

shielded coaxial cable or fiber optic cable, ...") to item 60,

host computer). It would have been obvious to one in skilled in

the art at the time of the invention to modify Adelman et al to

couple mobile client(s) through a base station in order to make

mobile units to be part of a cluster as taught in Harsch and

Adelman (Harsch: see FIG. 1, mobile units 66, 66a, and 66b

connected to ° host computer, 60; Adelman: FIG. 8F, showing

joining of client into a cluster.). For claim 22: The system of

claim 20 (see supra for claim 20 discussion), wherein the

presence server (cluster master, which is also cluster member,

"... each of the cluster members is a computer system ...",

column 5, line 22; acting as master) determines measures of

network load (determined by using the sequence number of

keepalive and keepalive interval, Adelman: see FIG. 8C, item

835; sequence number is the only variable to determine the

network load.) by querying a controller that has access a

measure of network load (FIG. 1 in conjunction with FIG. 4, FIG.

1 Item 110 is the cluster one ether net connected to other

network units. To get the sequence number master must have

queried and obtained the packet from the Ethernet controller.).

As to the keepalive period being based on network load see the

rejection on claim 1 and 3 above.

For claim 24: The system of claim 20 (see supra for claim 20

discussion), wherein the at least one mobile subscriber (after

Harsch modification of alderman as discussed supra, mobile

station is non-master client) upon receiving the selected

keepalive period (Adelman: FIG. 8G, Item 890, "CLIENT GOT MASTER

KEEPALIVE"), sends the next keepalive message at a time

determined by the selected keepalive period Item 891, "UPDATE

ADAPTIVE KEEPALIVE INTERVAL (CALCULATED BY MASTER)", updating

the keepalive interval has the effect of sending the next

keepalive message according to the updated keepalive interval.).

6. Claims 5 and 11 are rejected under 35 U.S.C. 103(a) as being
unpatentable over Adelman et al and Fleming in view of Rashid et
al (US 2004/0230661).

For Claim 5 and 11 Adelman et al and Fleming teach all the claim
limitations except for polling (polling for claim 5) and pushing
(for claim 11) the network load information. The general concept
of pushing and polling information is well known in the art as
shown in Figure 3, following item 302 to decide whether push or
pull. It would have been obvious to one in skilled in the art at
the time of the invention to modify Adelman et al and Fleming.
to push or pull network information in order to implement
authentication process as taught in Rashid et al (see Page 3,
Para 0036-0042 for push based process and Para 0043-0045 for
pull based process

Claim 16 is rejected under 35 U.S.C. 103(a) as being
unpatentable over Adelman et al and Fleming in view of rfc2543.

For claim 16 Adelman et al and Fleming teach all claim
limitations except SIP message is being used as keepalive
message. The general concept of using an SIP message as
keepalive message is well known in the art as illustrated

Internet draft session timer (page 3, second Para, "... this

extension defines a keepalive mechanism for SIP sessions."). It

would have been obvious to one skilled in the art at the time of

the invention to modify Adelman et al and Fleming to use SIP

message as keepalive message in order to create sessions as

taught in RFC 2543 (RFC 2543, page 1, Abstract, first line, "The

Session Initiation Protocol (SIP) is an application-layer

control (signaling) protocol for creating, modifying and

terminating sessions with one or more participants", which

teaches SIP can be used to create sessions).

Claim 18 is rejected under 35 U.S.C. 103(a) as being

unpatentable over Adelman et al and Fleming in view of Aharoni

et al (US 6014694).

For claim 18, Adelman et al and Fleming teach all the claim

limitations (as discussed supra) except changing keepalive

period based on threshold change in network load. The general

concept of changing timer value is well known in the art as

illustrated in Aharoni et al (FIG. Item 116, "Bytes Online

[network load] Recommended Bytes Online? [threshold]", yes no

change, No, set TIMEOUT=1000 (setting a timeout period, i.e.

setting keepalive time period to 1000, and waiting for

acknowledgment from item 120). It would have been obvious to one

in skilled in the art at the time of invention to modify Adelman

et al and Fleming to change the keepalive period based on

threshold change in network load in order to measure network

bandwidth as taught by Aharoni et al (FIG. 11, starting step,

"BANDWIDTH MEASUREMENT SCAN PHASE").

9. Claim 21 is rejected under 35 U.S.C. 103(a) as being

unpatentable over Adelman et al and Fleming view of Harsch and

Rashid et al.

For claim 21, Adelman et al, Fleming and Harsch (as discussed

supra in claim 20) teach all claim limitations, except polling

the network load information from the controller. The general

concept of polling information is in well known in the art as

illustrated in Rashid: Figure 3, following item 302 to decide

whether poll or push. It would have been obvious to one skilled

in the art at the time of the invention to modify Adelman et al

, Fleming and Harsch to poll the network load information in

order to implement authentication process as taught in Rashid et

al (Rashid: Page 3, Para 0043- 0045 for poll based process).

10. Claim 23 is rejected under 35 U.S.C. 103(a) as being

unpatentable over Adelman et al and Fleming in view of Harsch

and Aharoni et al (US 6014694).

For claim 23, Adelman et al, Fleming and Harsch teach all the

claim limitations except keeping track of the network bandwidth.

The general concept of keeping track of network bandwidth is

well known in the art as illustrated by Aharoni et al (Aharoni:

FIG. 12, sender keeping (calculating) track of bandwidth as

shown in the top start item). It would have been obvious to one

in skilled in the art at the time of invention to modify Adelman

et al, Fleming and Harsch to keep track bandwidth use in order

to determine new time to send as taught in Aharoni et al. (see,

Aharoni: FIG. 12/2, item 160).

Conclusion

    The prior art made of record and not relied upon is

considered pertinent to applicant's disclosure.

    Any inquiry concerning this communication or earlier

communications from the examiner should be directed to Yasin

Barqadle whose telephone number is 571-272-3947. The examiner

can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on 571-272-3949. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Information regarding the status of an application may be obtained form the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or public PAIR system. Status information for unpublished applications is available through private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Yasin M Barqadle/

Primary Examiner, Art Unit 2153